considerably improved in their powers of resistance to a transverse strain.

8. "On extraordinary Oscillations of the Sea; with an account of some Observations in Mount's Bay." By Richard Edmonds, Jun. Communicated by Sir Charles Lemon, Bart., F.R.S.

In this communication the author notices many remarkable oscillations of the sea which had been observed nearly a century ago in Mount's Bay and Plymouth Sound, and also elsewhere. He then particularly describes some which have occurred more recently at the former places. Of these the following are the principal:—

On the morning of the 31st of May, 1811, the sea was observed to rise and fall rapidly from 4 to 8 feet.

On the 5th of July, 1843, the author witnessed oscillations of the sea in Mount's Bay.

In the evening of the 30th of October, 1843, oscillations of the sea were observed in Mount's Bay and at Plymouth.

On the morning of the 5th of July, 1846, immediately after a terrific thunder-storm, oscillations of the sea were observed at Marazion. The author remarks that the great storm which passed over England on this day raged in the Atlantic during the night of the 4th of July.

On the morning of the 1st of August, 1846, the sea at Penzance pier was observed suddenly to rise between 1 and 2 feet, and as suddenly to rush back. It is remarked that London and its vicinity were visited on this day by a most destructive hail- and thunder-storm.

On the 23rd of May, 1847, there were extraordinary oscillations of the sea, and a slight motion of the ground was felt on the cliff between Newlyn and Mousehole.

After referring to the theories which have been advanced in explanation of these phenomena, the author observes, in conclusion, that, from what he has stated on the subject, and from the fact of earthquakes, as well as extraordinary oscillations of the sea, having so frequently occurred during thunder-storms, he sees no difficulty in the supposition, that all the oscillations to which he has referred may have resulted from submarine shocks of the earth, occasioned by electrical discharges between the earth and the atmosphere, or between oppositely electrified portions of the earth.

June 20, 1850.

THE EARL OF ROSSE, President, in the Chair.

The following papers were read:—

1. "Observations on the Nebulæ." By the Earl of Rosse, Pres. R.S., &c. &c.

The object of this paper is to lay before the Royal Society an account of the progress which has been made, up to the present time,